

# The impact of theoretical priors on cosmological modified gravity constraints

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Cosmological constraints on modified gravity typically need to assume parametrisations that heavily restrict the functional forms of the independent degrees of freedom. They are also subject to assumptions about the background expansion history, the speed of gravitational waves, and theoretical priors such as shift symmetry and stability in a gravitational wave background. I show the impact of these choices on constraints on modified gravity in both the EFT of Dark Energy and phenomenological  $\mu_0 - \Sigma_0$  formalisms, using CMB anisotropies and lensing, the ISW effect, galaxy clustering, and Type IA supernovae as probes.

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